

**CLAIMS****WE CLAIM:**

1. A method, comprising:

receiving a request from a remote unit to provide a power level associated with a

5 transmitting component, wherein the request is transmitted over a

communications protocol;

measuring a power level of a signal provided by the transmitting component in

response to receiving the request from the remote unit; and

providing the measured power level to the remote unit over the communications

10 protocol.

2. The method of claim 1, further determining if the measured power level is within an acceptable range.

- 15 3. The method of claim 2, further comprising receiving a request from the remote unit to adjust a power level of an output signal provided by the transmitting component in response to determining that the measured power level is outside the acceptable range.

4. The method of claim 2, further comprising adjusting the power level of an output  
20 signal provided by the transmitting component in response to determining that the measured power level is outside the acceptable range.

5. The method of claim 4, wherein adjusting the power level comprises attenuating the output signal provided by the transmitting component by a preselected amount in response to determining that the measured power level is higher than desired.

5 6. The method of claim 4, wherein adjusting the power level comprises decreasing an amount of attenuation applied to the output signal provided by the transmitting component by a preselected amount in response to determining that the measured power level is lower than desired.

10 7. The method of claim 1, wherein the transmitting component is a baseband radio and wherein signal provided by the baseband radio is deliverable to one of an antenna port and a power meter, and wherein measuring the power level comprises directing the signal provided by the baseband radio to the power meter in response to receiving the request from the remote unit.

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8. The method of claim 1, wherein the transmitting component is a baseband radio, and wherein measuring the power level comprises measuring the power level of at least one of a paging channel, synchronization channel, access channel, traffic channel, and pilot channel.

20 9. The method of claim 1, wherein the communications protocol is a high-level data link control protocol, wherein the transmitting component is associated with a base station of a cellular communications system, and wherein the remote unit is located in a mobile services switching center associated with the base station.

10. The method of claim 9, wherein the base station comprises at least a second transmitting component, wherein measuring the power level comprises deactivating the second transmitting component before measuring the power level.

5 11. An article comprising one or more machine-readable storage media containing instructions that when executed enable a processor to:

receive a request from a remote unit to indicate a power level of a signal provided by  
a transmitting component;

determine a power level of the signal in response to receiving the request from the  
10 remote unit;

determine if the measured power level is at an acceptable level; and

adjust a power level of an output signal provided by the transmitting component by a  
preselected level in response to determining that the measured power level is  
not at the acceptable level.

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12. The article of claim 11, wherein the instructions when executed enable the processor to increase the power of the output signal by decreasing an amount of attenuation that is applied to the output signal.

20 13. The article of claim 11, wherein the instructions when executed enable the processor to decrease the power of the output signal by attenuating the output signal by a preselected amount.

14. The article of claim 11, wherein the transmitting component is associated with a base station of a cellular communications system, wherein the instructions when executed enable the processor to receive the request over a communications protocol from a mobile services switching station associated with the base station.

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15. The article of claim 14, wherein the instructions when executed enable the processor to provide the measured power level to the remote unit located at the mobile services switching center.

10 16. The article of claim 11, wherein the transmitting component is a baseband radio and wherein a signal provided by the baseband radio is deliverable to one of an antenna port and a power meter, wherein the instructions when executed enable the processor to direct the signal provided by the baseband radio to the power meter in response to receiving the request from the remote unit.

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17. An apparatus, comprising:

an interface adapted to receive a request from a remote unit to adjust a transmit power

level of a first component of a base station; and

a control unit communicatively coupled to the interface, the control unit adapted to:

20 determine a power level of an output signal of the first component in response

to the request; and

provide the determined power level of the output signal of the first component

to the remote unit.

18. The apparatus of claim 17, wherein the base station services a cellular communications system and wherein the output signal comprises at least one of a paging  
5 channel, synchronization signal, traffic channel, access channel, and pilot channel, and wherein the control unit is further adapted to determine if the measured power level is at an acceptable level.

19. The apparatus of claim 18, wherein the control is further adapted to adjust a power  
10 level of an output signal provided by the transmitting component by a preselected level in response to determining that the measured power level is not at the acceptable level.

20. The apparatus of claim 19, wherein the control unit is adapted to adjust the power level by adjusting an amount of attenuation that is applied to the output signal.

15 21. The apparatus of claim 17, further comprising a power meter, wherein the control unit is adapted to provide the output signal of the first component to the power meter.

22. The apparatus of claim 21, further comprising a switch device adapted to receive the  
20 output signal from the first component and adapted to provide the output signal to at least one of an antenna port and the power meter in response to receiving a signal from the control unit.

23. The apparatus of claim 17, wherein the base station comprises a second component, and wherein the control unit is adapted to deactivate the second component of the base station before determining the power level of the output signal of the first component.

5 24. The apparatus of claim 23, wherein the first component is a baseband radio associated with an alpha sector of a first carrier and the second component is a baseband radio associated with the alpha sector of a second carrier.

25. A communications system, comprising:

10 a remote unit adapted to provide a request to calibrate a transmit power level;  
a base station communicatively coupled to the remote unit over a communications protocol, the base station adapted to:  
receive the request;  
measure a power level of a signal provided by a transmitting component;  
15 determine if the measured power level is at an acceptable level; and  
adjust a power level of an output signal provided by the transmitting component by a preselected level in response to determining that the measured power level is not at the acceptable level.

20 26. The system of claim 25, wherein the base station is a base station for a cellular communications system.

27. The system of claim 26, wherein the base station is adapted to provide a three-carrier, three-sector coverage.

28. The system of claim 26, wherein the base station is adapted to provide a six-carrier, six-sector coverage.

5 29. The system of claim 25, wherein the remote unit is located at a mobile services switching center associated with the base station.

30. The system of claim 25, wherein the base station is associated with at least one of a local area network and a cordless communications system.

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31. An apparatus, comprising:

means for receiving a request from a remote unit to provide a power level associated with a transmitting component, wherein the request is transmitted over a communications protocol;

15 means for measuring a power level of a signal provided by the transmitting component in response to receiving the request from the remote unit; and

means for providing the measured power level to the remote unit over the communications protocol.

## **MONITORING AND ADJUSTING TRANSMIT POWER LEVEL(S) IN A COMMUNICATIONS SYSTEMS**

A method and an apparatus is provided for monitoring and adjusting a power level of  
5 a transmitting component. The method comprises receiving a request from a remote unit to  
provide a power level associated with a transmitting component, wherein the request is  
transmitted over a communications protocol. The method includes measuring a power level  
of a signal provided by the transmitting component in response to receiving the request from  
the remote unit, and providing the measured power level to the remote unit over the  
10 communications protocol.